

INFORMATION SHEET

ABOUT SITE C

The Site C Clean Energy Project (Site C) is being proposed as part of BC Hydro's overall program to invest in and renew the province's electricity system.

Site C would be a third dam and hydroelectric generating station on the Peace River in northeast B.C. It would provide up to 1,100 megawatts (MW) of capacity, and produce about 5,100 gigawatt hours (GWh) of electricity each year — enough energy to power the equivalent of about 450,000 homes per year in B.C.

As the third project on one river system, Site C would gain significant efficiencies by taking advantage of water already stored in the Williston Reservoir. This means that Site C would generate approximately 35 per cent of the energy produced at the W.A.C. Bennett Dam with five per cent of the reservoir area.

The Site C reservoir would be one of the most stable in the BC Hydro system with relatively little fluctuation in water levels during typical operations.

The Site C project requires environmental certification and other regulatory permits and approvals before it can proceed to construction. In addition, the Crown has a duty to consult and, where appropriate, accommodate Aboriginal groups.



AN ARTIST RENDERING OF THE SITE C CLEAN ENERGY PROJECT

PROJECT ATTRIBUTES

BC Hydro is proposing to build the Site C Clean Energy Project as a long-term source of clean, reliable and cost-effective electricity for customers.

Meeting Future Electricity Needs

B.C.'s electricity needs are forecast to increase by approximately 50 per cent in the next 20 years. As extensive as BC Hydro's electricity supply is, it will not be enough to meet future electricity needs if demand continues to grow as projected. The planning, development and construction of a large hydro project like Site C requires a long lead time – 10 years or more. This means that BC Hydro must plan now to ensure that British Columbians have the electricity they need in the future.

Low Greenhouse Gas Emissions

Site C would produce among the lowest greenhouse gas emissions (GHGs), per gigawatt hour, when compared to other forms of electricity generation. Preliminary study results indicate that Site C would produce significantly less GHGs per gigawatt hour than fossil fuel sources such as natural gas, diesel or coal. Emissions from Site C would fall within the ranges expected for wind, geothermal and solar energy sources.

Cost-Effective Electricity

Site C would have a significant upfront capital cost of \$7.9 billion, low operating costs, and a long life of more than 100 years. Site C would produce electricity at a cost range between \$87 and \$95 per megawatt hour. This would make Site C among the most cost-effective resource options to help meet B.C.'s future electricity needs.

Regional Economic Development

Site C is estimated to create approximately 7,000 person-years of direct construction employment through the seven-year construction period. The project is estimated to create approximately 35,000 direct and indirect jobs through all stages of development and construction. The construction of Site C would also provide significant business opportunities for small, medium and large businesses, including northern and Aboriginal businesses.

Integrating Renewable Energy

Site C would help facilitate the development of intermittent renewables — such as wind and run-of-river hydro — as a dependable and flexible resource. With its reliable capacity, Site C would be able to quickly increase or decrease generation to match the availability of intermittent resources. For example, Site C generation could be increased when intermittent resources are not available (e.g., when the wind is not blowing). When intermittent resources are available, the generation from Site C could be decreased and the water could be stored for later use.

More information on Site C can be found at: www.bchydro.com/sitec.